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a³
ant 9 crankshaft.

REMARKS

This is in full and timely response to the Office Action dated October 24, 1996. Reconsideration and reexamination are respectfully requested in view of the foregoing amendments and the following remarks.

By the foregoing amendment, claims 1 to 26, 28, 29, and 31 to 42 have been amended, and new claims 43 to 46 have been added. Thus, claims 1 to 46 are pending for the Examiner's consideration.

The drawings were objected to under 37 CFR §§ 1.83 and 1.84 for failing to identify with reference numerals each element of the claimed invention. To overcome these objections, the applicants have proposed amending Figs. 1 and 3 of the drawings to add reference numerals corresponding to the claimed elements, and to add new Fig. 5, which is an enlarged view of a central part of the flywheel assembly shown in Fig. 3. The proposed new Fig. 5 also includes reference numerals for each of the elements mentioned by the Examiner on page 2 of the Office Action. No new matter is included in new Fig. 5 since all of the structural features therein were disclosed in original Fig. 3 of the drawings.

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The Examiner objected to the title of the invention as not being descriptive. To overcome this objection, the title of the invention has been changed to --FLYWHEEL [CRANKSHAFT] ASSEMBLY FOR INTERNAL COMBUSTION ENGINE--. As amended, the title of the invention corresponds more closely to the invention to which the claims are directed.

REJECTIONS BASED ON DEFECTIVE REISSUE DECLARATION

Claims 1 to 42 stand rejected as allegedly being based upon a defective reissue declaration under 35 U.S.C. § 251. Specifically, the Examiner contends that the reissue declaration fails to (1) particularly specify the errors discovered both prior to filing and during the prosecution of the parent application; and (2) provide reasons as to how each and every error arose or occurred and the proximate dates of discovery. This rejection is respectfully traversed for the following reasons.

As stated in paragraph 26 of the Reissue Declaration, each of the independent claims 1 and 8 of the issued '635 patent, contains the following limitation:

wherein each of said elastic plate, said flywheel body and said reinforcing member comprises a first portion, said first portion of said flywheel body being placed axially between said first portions of said elastic plate and said reinforcing member, and said

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first portions of said elastic plate, said flywheel body and said reinforcing member defining clearances for allowing said first portion of said flywheel body to move axially between said first portions of said elastic plate and said reinforcing member.

This limitation was added in part to distinguish over the prior art references of Numata (JP 57-058,542) and Japanese Publication No. 63-190639, as indicated on pages 9 and 10 of the response filed February 15, 1994 in parent application Serial No. 07/485,659, and in part to overcome a rejection under 35 U.S.C. § 112, second paragraph, as indicated on pages 9 and 10 of the response filed March 27, 1995 in parent application Serial No. 08/243,526.

As pointed out in the Reissue Declaration, the added limitation inadvertently excludes certain embodiments (see, e.g., Fig. A) of the present invention by including language which was not required to distinguish over the prior art references of Numata '542 and JP '639. This reissue application has been filed to correct this mistake by broadening the claims in certain respects so as to read on the device shown in Fig. A, and narrowing the claims in other respects so as to continue to distinguish over the prior art references of Numata '542 and JP '639.

The prosecution history of the parent applications shows that the applicants amended the claims to include the

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above-mentioned limitation to "surrender" claim coverage of the structures shown in Numata '542 and JP '639. The claims were not amended for the purpose of excluding claim coverage of a device such as that shown in Fig. A. Thus, since the proposed new claims in this reissue application are broader in certain respects so as to read on the device shown in Fig. A, but narrower in other significant respects to continue to distinguish over the prior art references of Numata '542 and JP '639, this reissue is not prohibited by the "recapture rule" set forth in Mentor Corp. v. Coloplast Inc., 27 USPQ2d 1521, 1525 (Fed. Cir. 1993) (recapture rule does not apply to broadened reissue claim that does not attempt to reclaim what was surrendered earlier). See also, Whittaker Corp. v. UNR Industries, Inc., 15 USPQ2d 1742 (Fed. Cir. 1990) (claim narrower in scope than similar claim cancelled during original prosecution does not violate recapture rule).

As set forth in paragraph 26 of the Reissue Declaration, the flywheel assembly shown in Fig. A is one example illustrating that the above-mentioned limitation is unessential, and which prompted the recognition of the error in the issued patent. As described in paragraph 15 of the Reissue Declaration, it is believed that the error first arose and occurred on January 29, 1993, when the applicants' Japanese patent representatives

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first proposed additional claim limitations that were eventually added to claim 11 (claim 1 of the '635 patent) in an amendment filed February 15, 1994. The applicants, without deceptive intention, failed to notice this error in the face of the imminent deadline of February 13, 1993 for the appellants' reply brief, as detailed in the Reissue Declaration.

Since paragraphs 10 to 25 of the Reissue Declaration describe in great detail the events leading up to and including the amendment of the claims to include the unessential limitations mentioned above, and paragraphs 26 et seq. distinctly specify the excesses and insufficiencies in the claims, it is respectfully submitted that the applicants have fully and adequately specified "how" and "when" each error arose or occurred so as to demonstrate error without deceptive intention.

The Examiner is invited to review In re Amos, 21 USPQ2d 1271, 1272 (Fed. Cir. 1991), which provides an example of an acceptable reissue declaration that relies on "mistake and inadvertence" during the preparation of a patent application and "oversight" by the attorney as to the scope of the claims. This is believed to be quite similar to the present case where the applicants' representatives made an error due to "inadvertence, accident or mistake" (see paragraph 8 of Reissue Declaration).

The Examiner cites In re Weiler, 229 USPQ 673, 677

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(Fed. Cir. 1986) (footnote 4) for the proposition that allegations of the inventor's ignorance of drafting and claiming technique to adequately encompass the invention and counsel's ignorance of the invention are unavailing. First, it should be noted that neither the applicants nor the applicants' counsel have claimed "ignorance" of drafting or claiming technique. The word "ignorance" does not appear anywhere in the applicants' reissue declaration. Second, the footnote of Weiler cited by the Examiner is mere dicta in a case that appears to have little relevance to the present situation. The Examiner is invited to review In re Amos, 21 USPQ2d 1271, for further guidance as to the type of errors that justify granting reissue, as well as statements in a reissue declaration that are sufficient to demonstrate lack of deceptive intention.

The Amos case also clarifies that the "same invention" requirement of § 251 only requires that the original application have sufficient disclosure that a patentee could have claimed the subject matter in the original application. 21 USPQ2d at 1275. Thus, the "same invention" requirement is generally the same as the enablement and description requirements of 35 U.S.C. § 112, first paragraph.

On page 4 of the Office Action, the Examiner has requested that those involved in the prosecution of the original

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applications submit affidavits to support the statements made in the applicants' Reissue Declaration. While there appears to be no requirement for such affidavits mentioned in either of the Wilder or Weiler cases cited by the Examiner, or in the M.P.E.P., Sections 1402, 1414, and 1414.03, as cited by the Examiner, declarations from the applicants' Japanese patent counsel and the applicants' U.S. patent counsel involved in the prosecution of the original applications is being filed herewith to comply with the Examiner's request. These additional declarations further corroborate and support the events described in paragraphs 11 et seq. of the Reissue Declaration.

On page 4 of the Office Action, the Examiner states that "[i]t is unclear as to why the discovery of the device shown in Fig. A after the issuance of the patent has a nexus with the excess or insufficiency in the claims." As described in paragraphs 9, 10, and 26 et seq. of the Reissue Declaration, the discovery of the device shown in Fig. A caused the applicants to realize that the issued claims of the '635 patent were partly inoperative because none of the claims were thought to be broad enough to encompass the now-preferred flywheel assembly shown in Fig. A, which flywheel assembly includes patentable features of the applicants' invention. The new claims added in this reissue application cure this particular defect in the '635 patent by

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removing unnecessary claim limitations and adding other patentable claim limitations, thereby providing allowable claims which encompass the Fig. A device. Thus, it is respectfully submitted that the Reissue Declaration makes a clear nexus between the device shown in Fig. A and the excess or insufficiency in the issued claims.

Accordingly, it is respectfully requested that the Examiner reconsider and withdraw the rejections based on an allegedly defective reissue declaration under § 251.

OBJECTIONS TO SPECIFICATION AND DISCLOSURE

The specification was objected to under 37 CFR § 1.75(d) as allegedly failing to provide proper antecedent basis for the claimed subject matter. In response, the specification has been carefully reviewed and amended to incorporate into the specification the same terminology used in the claims. As amended, the specification is believed to provide a clear antecedent basis for each of the terms used in the claims.

The disclosure was objected to for failing to designate several of the claimed elements with a reference numeral or character. In response, the specification has been amended to recite each of the claimed elements and provide a reference numeral for each element, as shown in proposed new Fig. 5. No

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new matter has been added by these changes since the structure shown in original Figs. 1 and 3 provides clear support for the changes.

Claims 17 to 30 and 32 to 42 stand rejected under 35 U.S.C. § 112, first paragraph, as allegedly containing subject matter that was not described in the specification sufficiently to indicate that the inventors had possession of the claimed invention at the time the original application was filed. Specifically, the Examiner contends that the claimed "smooth surface," the claimed "surface of revolution," and the claimed "imaginary flat surface" are not supported by the original specification.

In response, the application has been amended to cancel the term "smooth" from the new claims, and to change the phrase "imaginary flat surface" to --imaginary flat plane--. It is respectfully submitted that the original specification provides adequate support for the claimed "surface of revolution" and "imaginary flat plane." For example, the reinforcing member 4 is described as being "annular" and having a "cylindrical section" 4a. Figs. 1 and 3 of the drawings make it clear that an outer surface of the reinforcing member 4 defines a surface of revolution, as claimed. The claimed "surface of revolution" is merely a geometrical term used to describe the structure which

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would have been apparent to one of ordinary skill in the art upon reviewing the specification and Figs. 1 and 3 of the original application. Similarly, the term "imaginary flat plane" is used merely to describe the structure of the "radially extending surface 5g" which is apparent from the specification and Figs. 1 and 3 of the original application. Thus, neither of these terms constitutes new matter.

REJECTIONS UNDER 35 U.S.C. § 112, SECOND PARAGRAPH

Claims 1 to 42 stand rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicants regard as the invention. Specifically, the Examiner contends that it is unclear whether "a driven unit" is part of the claimed invention, that claim 42 is unclear as to whether a flywheel assembly or method of making a flywheel assembly is being claimed, that claims 13 and 29 are unclear as to whether a flywheel assembly or method of using a flywheel assembly is being claimed, that claims 15, 17, and 23 contain elements that appear in the claims at least twice, and that a confusing array of terms are used throughout the claims. To the extent that any of these objections might still apply to the claims as amended, they are respectfully traversed for the

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following reasons.

Claims 1, 8, 13, 14, 16, and 31 have been amended to eliminate the phrase "to a driven unit", as requested by the Examiner. Thus, it is clear that the claimed invention is directed to a flywheel assembly, not a combination of a flywheel assembly and a driven unit.

Claims 29 and 42 are clearly drawn to a flywheel assembly, not a process of making/assembling a flywheel assembly. As stated in the M.P.E.P. § 2173.05(p)(a), a product claim that defines the claimed product in terms of the process by which it is made (i.e., product-by-process) is proper. Since claim 42 clearly states in the preamble that it is directed to a flywheel assembly (i.e., a product, not a process), the claim is believed to be in full compliance with § 112, second paragraph.

Claim 13 is also clearly drawn to a flywheel assembly and not a process of using a flywheel assembly. Indeed, there are no process steps recited in claim 13. The "wherein" clause of claim 13 defines structure of the flywheel assembly which cannot be considered a method step of using the apparatus, as suggested by the Examiner.

With regard to paragraph (d) on page 9 of the Office Action, it is respectfully submitted that the terms "outer portion" and "inner portion" which appear more than once in

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claims 15 and 17 are clearly identified as to whether the terms describe a portion of the elastic plate, reinforcing member, or flywheel body. Moreover, the term "axial distance" which appears twice in claim 23 clearly and definitely describes two distinct axial distances. Thus, no amendment of these claimed features is believed necessary for compliance with 35 U.S.C. § 112, second paragraph.

With regard to paragraph (e) on page 9 of the Office Action, it is respectfully submitted that the allegedly "confusing variety of terms" identified by the Examiner have been eliminated by the foregoing amendment, which provides complete consistency throughout the specification and claims. Moreover, each claimed element is now clearly identified and labeled in the proposed new Fig. 5 filed herewith, which is an enlarged view of a portion of the flywheel assembly shown in original Fig. 3. Also, the terms "loosely fit," "smooth" and "flat surface" have been deleted throughout the claims to overcome the Examiner's objections listed on page 10 of the Office Action. It is respectfully submitted that the term "loose fit," which is still used in the specification and claims, clearly denotes a fit that permits relative movement between parts and does not render the claims indefinite.

The Examiner's objection to the terms "engageable" and

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"movable" is respectfully traversed. The Examiner contends that these terms are indefinite because the "engageable surface" and the "movable" flywheel body recited in the claims are allegedly not required structurally to engage or move, respectively. To overcome this objection, the term "engageable surface" has been changed to --engaging surface--, and the phrase "whereby said flywheel body is movable" has been changed to --with a clearance allowing said flywheel body to move--. These changes are believed to clarify any inherent indefiniteness that might exist in the terms "engageable" and "movable."

REJECTIONS BASED ON PRIOR ART

Claims 13 to 42 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over Numata (Japanese Patent Publication No. 57-058,542) ("Numata '542"). This rejection is respectfully traversed for the following reasons.

Numata '542 discloses a flywheel assembly having a guide stopper plate 24 which is clamped between the shaft end of the crankshaft 1 and the elastic plate 3, as shown in Fig. 4. Numata '542 fails to show the structure of an elastic plate clamped between the crankshaft end and the reinforcing member, as claimed. The guide stopper plate 24 is on the left side of the

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elastic plate 3, and the flywheel 9 is on the right side of the elastic plate 3. Therefore, the guide stopper plate 24 clearly has no portion fit in the central hole of the flywheel 9, as shown in Fig. 4. Instead, the main drive shaft 6 is received in the central hole of the flywheel 9 through the double ball bearing 8', similar to the ball bearing 8 shown in Fig. 1 of Numata '542.

Fig. 5 of Numata '542 is a side view as seen from the left of Fig. 4. Fig. 5 does not show a central hole receiving a cylindrical portion of the member 24 with a clearance, as suggested by the Examiner. As shown in Fig. 4, the crankshaft 1 has a large diameter section at the right end, and a small diameter section extending leftward in Fig. 4 from the large diameter section. The innermost two concentric circles shown in Fig. 5 represent a cross section of the small diameter section of the crankshaft 1 by a central small hatched circle, and the large diameter section by a concentric circle slightly larger than the small circle. The ball bearing 8' and the central hole of the flywheel 9 are not shown at all in Fig. 5. The guide stopper plate 24 and the crankshaft 1 are both on the left side of the elastic plate 3, as seen in Fig. 4. Therefore, the inner portion of the elastic plate 3 cannot be clamped between the guide stopper plate 24 and the shaft end of the crankshaft 1, as stated

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by the Examiner.

It is also noted that the member 25 of Numata forms a spherical bearing 21, with the spherical recess 26 formed in the flywheel 9. However, the member 25 is not a part of the guide stopper plate 24, and the elastic plate 3 is not clamped between the member 25 and the end of the crankshaft 1.

Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 13 to 42 under §§ 102(b) and 103.

REJECTION UNDER RES JUDICATA DOCTRINE

Claims 13 to 16 and 31 were rejected under the *res judicata* doctrine as allegedly having an identical scope or substantially identical scope as the appealed claims 11 to 16 and 18 in the parent application Serial No. 07/485,659. This rejection is respectfully traversed for the following reasons.

The scope of claims 13 to 16 and 31 is not identical or even substantially identical to the scope of the appealed claims 11 to 16 and 18. The claims on appeal lacked, among other things, the limitation that the elastic plate is clamped between the reinforcing member and a shaft end of the crankshaft. Specifically, independent claims 13 and 14 each recites the following limitation which was not in any of the claims on appeal:

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wherein said elastic plate is clamped axially between said reinforcing member and a shaft end of said crankshaft, said flywheel body comprises a central hole, and said reinforcing member is received concentrically in said central hole with a clearance allowing said flywheel body to move axially relative to said reinforcing member during operation.

Independent claim 15 recites the following limitation which was not in any of the claims on appeal:

wherein said inner portion of said elastic plate is fixedly clamped between said shaft end of said driving shaft and said inner portion of said reinforcing member, said inner portion of said flywheel body is fit over said cylindrical portion of said reinforcing member, and said reinforcing member allows axial movement of said inner portion of said flywheel body relative to said inner portions of said elastic plate and said reinforcing member.

Independent claim 16 recites the following limitation which was not in any of the claims on appeal:

wherein said elastic plate is clamped axially between said reinforcing member and said shaft end of said crankshaft.

Independent claim 31 recites the following limitation which was not in any of the claims on appeal:

wherein said elastic plate is clamped between said reinforcing member and said shaft end of said crankshaft.

As explained above, the Numata '542 clearly does not teach the feature of the elastic plate being clamped between the reinforcing member and shaft end of the crankshaft, as now claimed in each of independent claims 13 to 16 and 31. Thus, a

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rejection of these claims under the *res judicata* doctrine is improper and should be withdrawn.

CONCLUSION

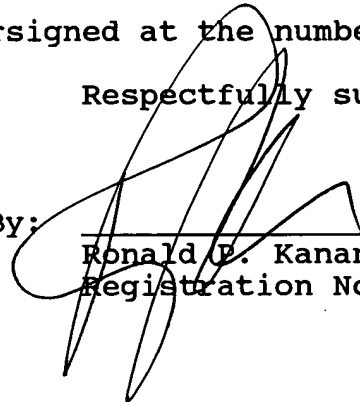
For at least the foregoing reasons, it is respectfully submitted that the present reissue application is in condition for allowance. Early issuance of a Notice of Allowance is earnestly solicited.

Should the Examiner have any comments or suggestions that could place this application into even better form, he is encouraged to contact the undersigned at the number listed below.

Respectfully submitted,

Date: March 17, 1997

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